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10/569,530	02/24/2006	Sturla Lutnaes	956315	6019

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EXAMINER	
SHOLEMAN, ABU S	
ART UNIT	PAPER NUMBER
2437	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/569,530	LUTNAES, STURLA	
	Examiner	Art Unit	
	ABU SHOLEMAN	2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/24/2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02/24/2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. This action is a responsive to communication (s) filed on 02/24/2010.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1- 2,7,9-10,14,16-18,23,25-27 are rejected under 35 U.S.C.103 (a) as being unpatentable over Chuang (US 5632026) (hereinafter Chuang) in view of Scott et al (US 2003/0023822) (hereinafter Scott) and further Ho (US 6510501) (hereinafter Ho).

As per claim 1, Chuang discloses

"copying data from the non-volatile memory to the working memory, wherein the security data is to be write-protected" as (column 4, lines 34-35, copy data ROM 32 to memory 31 and Cache RAM 33);

"a blocking function for the data in the working memory, as (column 4, lines 44-46, to prevent the writing of data into the cache RAM 33);

“monitoring all communication with the working memory” as (column 4, lines 41-43, disable signal device 39B determines a request has been made to write into the shadow portion of the memory);

"blocking all write attempts to the copied data stored in the working memory according to the blocking function, wherein at least a blocking function, monitoring communication and blocking write attempts are performed independently of a central processing unit of the electronic data processing device, such that central processing unit cannot manipulate the security data ” as (column 4, lines 41-46, and Fig.3B, determining and preventing and generating a disable signal are done by the a disable signal device 39b that is independent from the CPU 34) ,

Chuang explicitly fails to disclose “wherein activating is triggered by the copying being made to the working memory".

However, Scott discloses “wherein activating is triggered by the copying being made to the working memory" (par 0020, 0027, to write to the protected memory area, and when write operation has be completed then trigger an interrupt the signal to the signal that are connected to the memory).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the claimed invention by modifying the method of Chuang, based on the teachings of Scott, because doing so would prevent illegal program to modify data during communication.

The combination of Chuang and Scott explicitly fails to disclose “copying security data from the non-volatile memory to working memory”.

However, Ho discloses “copying security data from the non-volatile memory to working memory as (Fig.1, Flash memory contains security word numeral 104. This security word loaded into volatile memory [working memory]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the claimed invention by modifying the method of Chuang in view of Scott, based on the teachings of Ho, because doing so would improve copying secret data.

As per claim 2, Chuang in view of Scott in view of Ho discloses “wherein an area of the security data in the non-volatile memory is pre-defined and pre-stored in a device for blocking write attempts and used at least in relation to activating a blocking function" as (Ho, Fig.1, Flash memory contains security word numeral 104. This security word loaded into volatile memory [working memory] and Chuang, column 4, lines 41-44, blocking the address range of memory and also column 2, lines 24-26, ROM is storing data (pre-defined area)).

As per claim 9, this claim is directed to a device and contains limitations that are substantially similar to those recited in claim 1 above, and accordingly is rejected for similar reasons.

As per claim 10, this claim is directed to a device and contains limitations that are substantially similar to those recited in claim 2 above, and accordingly is rejected for similar reasons.

As per claim 7, Chuang in view of Scott in view of Ho discloses "wherein the blocking function comprises changing the destination address of the data transferred to the working memory (Chuang, column 4, lines 40-45, preventing the writing of data into the address range).

As per claim 14, this claim is directed to a device and contains limitations that are substantially similar to those recited in claim 7 above, and accordingly is rejected for similar reasons.

As per claim 16, Chuang in view of Scott in view of Ho discloses wherein it is implemented in hardware as (Chuang, column4, lines 33-34, Shadow control device 35).

As per claim 17, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 1 above, and accordingly is rejected for similar reasons.

As per claim 18, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 2 above, and accordingly is rejected for similar reasons.

As per claim 23, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 7 above, and accordingly is rejected for similar reasons.

As per claim 25, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 16 above, and accordingly is rejected for similar reasons.

As per claim 26, Chuang in view of Scott in view of Ho discloses "wherein the device is a portable communication device" as (Scott, par 0042, circuitry [device]).

As per claim 27, Chuang in view of Scott in view of Ho discloses "wherein the device is a cellular phone" as (Scott, par 0042, apparatus [phone]).

4. Claims 3- 6, 11-13 and 19-22 are rejected under 35 U.S.C.103 (a) as being unpatentable over Chuang (US 5632026) (hereinafter Chuang) in view of Scott et al (US 2003/0023822) (hereinafter Scott) and further Ho (US 6510501) (hereinafter Ho) and further Turkboylari (US 20030140238).

As per claim 3, Chuang in view of Scott in view of Ho discloses " copying data comprises copying only the security data from the non-volatile memory to the working

memory independently of the central processing unit of the data processing device as (column 4, lines 33-36, a shadow control device (independent from CPU) copy data to RAM based on Shadowing (security data) and lines 38-39,CPU copy data to the Cache RAM and Ho, Fig.1, Flash memory contains security word numeral 104. This security word loaded into volatile memory [working memory]).

But fails to disclose copying any further data under control of the central processing unit of the device.

However, Turkboylari copying any further data under control of the central processing unit of the device (Fig.1, CPU loads data from Non-volatile memory 15 to RAM 12).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the claimed invention by modifying the method of Chuang in view of Scott in view of Ho, based on the teachings of Turkboylari, because doing so would improve copying data faster.

As per claim 4, Chuang in view of Scott in view of Ho in view of Turkboylari discloses “wherein an area of the security data in the non-volatile memory and an area for storage of the security data in the working memory are pre-defined (Chuang, column 4, lines 41-44, blocking the address range of memory and also column 2, lines 24-26, ROM is storing data (pre-defined area) and Ho, Fig.1, Flash memory contains security word numeral 104. This security word loaded into volatile memory [working memory]) and wherein activating a blocking function is triggered by the copying being made to the pre-defined area for storage of the security data in the working memory and the

blocking function is activated f or that area of the working memory" (Scott, par 0020, 0027, to write to the protected memory area, and when write operation has be completed then trigger an interrupt the signal to the signal that are connected to the memory).

As per claim 5, Chuang in view of Scott in view of Ho discloses all the limitation set forth above, but fails to discloses copying all data from the non-volatile memory to the working memory under the control of the central processing unit of the device"

However, Turkboylari discloses "copying all data from the non-volatile memory to the working memory under the control of the central processing unit of the device" as (Turkboylari, on page 3, [0026], loads user code from non-volatile memory to RAM).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the claimed invention by modifying the method of Chuang in view of Scott in view of Ho, based on the teachings of Turkboylari, because doing so would improve copying data faster.

AS per claim 6, Chuang in view of Scott in view of Ho in view of Turkboylari wherein an area of the security data in the non –volatile memory and wherein activating a blocking function is triggered by a first detection of copying of security data in the non-volatile memory to an area of the working memory (Chuang, column 4, lines 41-44, blocking the address range of memory and also column 2, lines 24-26, ROM is storing data (pre-defined area) and Ho, Fig.1, Flash memory contains security word numeral 104. This security word loaded into volatile memory [working memory]) and blocking function is activated for that area of the working memory wherein an area of the security data in the non-volatile memory is pre-defined area (Scott, par 0020, 0027, to write to the protected memory area, and when write operation has be completed then trigger an interrupt the signal to the signal that are connected to the memory).

As per claim 11, this claim is directed to a device and contains limitations that are substantially similar to those recited in claim 3 above, and accordingly is rejected for similar reasons.

As per claim 12, this claim is directed to a device and contains limitations that are substantially similar to those recited in claim 4 above, and accordingly is rejected for similar reasons.

As per claim 13, this claim is directed to a device and contains limitations that are substantially similar to those recited in claim 6 above, and accordingly is rejected for similar reasons.

As per claim 19, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 3 above, and accordingly is rejected for similar reasons.

As per claim 20, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 4 above, and accordingly is rejected for similar reasons.

As per claim 21, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 5 above, and accordingly is rejected for similar reasons.

As per claim 22, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 6 above, and accordingly is rejected for similar reasons.

5. Claims 8, 15 and 24 are rejected under 35 U.S.C.103 (a) as being unpatentable over Chuang (US 5632026) (hereinafter Chuang) in view of Scott et al (US 2003/0023822) (hereinafter Scott) and further Ho (US 6510501) (hereinafter Ho) and further in view of Starr (US 4574350) (hereinafter Starr).

As per claim 8, Chuang in view of Scott in view of Ho discloses all the limitations set forth above, but fails to explicitly disclose “disconnecting a debugging unit at least when copying the security data to the working memory and reconnecting the debugging unit when the blocking function has been activated".

However, Starr discloses “disconnecting a debugging unit at least when copying the security data to the working memory and reconnecting the debugging unit when the blocking function has been activated” as (column 5, lines 48-60, lock unit [debugging unit] is responsible for monitoring the activity on the bus 32, for performing the locking [blocking function has been activated] and unlocking [reconnecting]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to implement the claimed invention by modifying the method of Chuang in view of Scott in view of Ho, based on the teachings of Starr, because doing so, would improve security in memory.

As per claim 15, this claim is directed to a device and contains limitations that are substantially similar to those recited in claim 8 above, and accordingly is rejected for similar reasons.

As per claim 24, this claim is directed to an electronic data processing device and contains limitations that are substantially similar to those recited in claim 8 above, and accordingly is rejected for similar reasons.

Response to Arguments

6. Applicant's arguments, see pages 8-11, filed on 02/24/2010, with respect to the rejection(s) of claim(s) 1-27 under 35 U.S.C § 103(a), have been fully considered but are moot in view of the new ground(s) of rejection .

Examiner Notes

7. Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Conclusion

8. The following prior art made of record and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See MPEP 707.05(c).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abu Sholeman whose telephone number is (571)270-73144. The examiner can normally be reached on Mon-Thurs 7:30 am-5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ABU SHOLEMAN/

Examiner, Art Unit 2437

/Michael Pyzocha/
Primary Examiner, Art Unit 2437